firmed acute proctitis. The zymodemes we found are those that produce no disease in parts of the world with endemic amoebiasis. Where is the evidence for invasion? McMillan and his colleagues postulated a toxin derived from *E histolytica* causing symptoms. Our work showed no cytotoxin of any sort in our patients harbouring *E histolytica* in their bowels.

Yours faithfully,
D Goldmeir
P G Sargeant

Praed Street Clinic,
St Mary's Hospital,
London W2 1NY

Correction

Control of hepatitis B and human T lymphotropic virus type III (HTLV-III) in homosexuals in Sheffield

This letter (*Genitourin Med* 1986;**62**:206) contained data from the department of genitourinary medicine of the General Infirmary, Leeds, by kind permission of Dr M Waugh. An acknowledgement of this was omitted in error.

Book review

Clinical aspects of AIDS and AIDS-related complex. Staquet M, Hemmer R, Baert A, eds, 1986. Oxford: Oxford University Press. Pp 209 including index. Price £25 (hardback).

This is a well produced book based on a symposium held in Belgium in October 1985. The papers are of uniformly high standard and the editors have ensured uniformity of style, though they understandably had to allow the introductions to each paper to be somewhat repetitive.

The first section deals with clinical presentations, clinical epidemiology, and natural history. Most accounts are descriptive and confirm previously held suspicions concerning the extent and nature of the problems. As one paper stated, almost on behalf of the others, "the clinical features observed are similar to those reported from elsewhere."

The second section deals with the infections seen in the acquired immune deficiency symdrome (AIDS), and comprises a review, fungal infections, aspects of mycobacterial infections seen in the United Kingdom, preliminary results of treatment for central nervous system toxoplasmosis, and treating patients with AIDS and crytposporidiosis with interferon and interleukin-2.

The third section deals with clinical immunology, laboratory tests, and "diagnostics", and includes a useful paper on the diagnostic and prognostic value of lymph node biopsy.

The fourth section deals with treatment, and comprises reports on the use of interferon, interleukin-2, suramin (two papers), and DHPG (RS2192). Three of the five paper titles contain the qualification "preliminary", which adds to their interest and simultaneously suggests that by the time you read this review (or the book) more relevant information will be available. Interestingly there is some debate about the side effects of suramin, which "are similar to those already published in the treatment of onchocerciasis" (p 192), but on page 186 "these side effects, in our experience and that of others, seldom occur in the treatment of onchocerciasis". Such contradictions almost certainly reflect the problems of comparing relatively small trials derived from different population groups in differing stages of infection with human immunodeficiency virus (HIV): if the side effects are different this suggests that it would be even more difficult to draw generally relevant conclusions about treatment results from either study: more work is required.

If you require a review of all aspects of AIDS there are more integrated accounts available, and if you want up to date information and trial results there are the journals. As this book fulfills neither role and costs £25, I cannot judge it to be a good buy: it would have been an ideal journal supplement.

P D Welsby

Notices

Organisers of meetings who wish to insert notices should send details to the editor (address on the inside front cover) at least eight months before the date of the meeting or six months before the closing date for applications.

Sixth Latin American congress of sexually transmitted diseases

The sixth Latin American congress of sexually transmitted diseases will be held on 16 to 18 September 1987 in Guayaquil, Ecuador. It will be preceded by a theoretical and practical course on "The laboratory in the diagnosis of sexually transmitted diseases", which will be held on 14 and 15 September.

For further information please contact Dr J Felipe Aroca Campodonico, President of UECETS, Casilla 4733, Guayaquil, Ecuador.

5th Forum of international andrology *(note new date)*

The 5th forum of international andrology will be held in Paris on 6–8 July 1987. Subjects will include male impotence, puberty and andropause, tumours of the testis, penile curvatures, urethritis, artificial insemination, and anti-androgens.

For further information please contact: Professor G Arvis, Department of Andrology-Urology, Hopital Saint-Antoine, 184 rue du Faubourg Saint-Antoine, F-75012 Paris, France (Tel: (1) 43 43 73 40, Telex: ARVIS 250 303 PUBLIC PARIS).

List of current publications

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and other treponematoses

Bladder dysfunction and neurosyphilis
JS WHEELER, DJ CULKIN, RJ O'HARA, AND JR CANNING (Hines, USA). *J Urol* 1986; **136**:903-5.

***Treponema pallidum* in human chancre tissue: an electron microscopic survey**
A POULSEN, T KOBAYASI, L SECHER, AND K WEISMANN (Copenhagen, Denmark). *Acta Derm Venereol (Stockh)* 1986;**66**:423-30.

Detection of immunoglobulin M in cerebrospinal fluid from syphilis patients by enzyme-linked immunosorbent assay
JB LEE, CE FARSHY, EF HUNTER, EA HAMBIE, GH WOBIG, AND SA LARSEN (Seoul, South Korea). *J Clin Microbiol* 1986;**24**:736-40.

Cloning and expression of the major 47-kilodalton surface immunogen of *Treponema pallidum* in *Escherichia coli*
MV NORGARD, NR CHAMBERLAIN, MA SWANCUTT, AND MS GOLDBERG (Dallas, USA). *Infect Immun* 1986;**54**:500-6.

Antibody-independant interactions of fibronectin, C1q and human neutrophilis with *Treponema pallidum*
RE BAUGHN (Houston, USA). *Infect Immun* 1986;**54**:456-64.

Gonorrhoea

Effect of holding temperature on isolation of *Neisseria gonorrhoeae*
KD EVANS, EM PETERSON, JI CURRY, JR GREENWOOD, AND LM de la MAZA (Orange, USA). *J Clin Microbiol* 1986;**24**:1109-10.

Evidence for N-terminal exposure of the protein 1A subclass of *Neisseria gonorrhoeae* protein 1
RC JUDD (Missoula, USA). *Infect Immun* 1986;**54**:408-14.

Gonorrhoea in heterosexual men: correlation between gonococcal W serogroup, *Chlamydia trachomatis* infection and objective symptoms
A-K RUDÉN, M BÄCKMAN, S BYGDEMAN, A JONSSON, O RINGERTZ, AND E SANDSTRÖM (Stockholm, Sweden). *Acta Derm Venereol (Stockh)* 1986;**66**:453-6.

Genetic analysis and penicillin binding protein alterations in *Neisseria gonorrhoeae* with chromosomally mediated resistance
TJ DOUGHERTY (Wallingford, USA). *Antimicrob Agents Chemother* 1986;**30**: 649-52.

High-level tetracycline resistance in *Neisseria gonorrhoeae* is result of acquisition of streptococcal *tet M* determinant
SA MORSE, SR JOHNSON, JW BIDDLE, AND MC ROBERTS (Atlanta, USA). *Antimicrob Agents Chemother* 1986;**30**:664-70.

Genetics of resistance in a non-β-lactamase-producing gonococcus with relatively high-level penicillin resistance
H FARUKI AND PF SPARLING (Chapel Hill, USA). *Antimicrob Agents Chemother* 1986; **30**:856-60.

In vitro activity of the two new 4-quinolones A 56619 and A 56620 against *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Mysoplasma hominis*, *Ureaplasma urealyticum* and *Gardnerella vaginalis*
KH TJIAM, JHT WAGENVOORT, B van KLINGEREN, P PIOT, E STOLZ, AND MF MICHEL (Rotterdam, the Netherlands). *Eur J Clin Microbiol* 1986;**5**:498-501.

Comparative study of cefoperazone and spectinomycin for the treatment of uncomplicated gonorrhea in men
EW HOOK, FN JUDSON, MS VERDON, JM EHRET, AND HH HANDSFIELD (Baltimore, USA). *Antimicrob Agents Chemother* 1986;**30**: 619-21.

Prevention of gonococcal ophthalmia neonatorum
HC DILLON (Birmingham, USA). *N Engl J Med* 1986;**315**:1414-5.

Single dose therapy of gonococcal ophthalmia neonatorum with ceftriaxone
M LAGA, W NAAMARA, RC BRUNHAM, *ET AL* (Winnipeg, Canada). *N Engl J Med* 1986;**315**:1382-5.

Non-specific genital infection and related disorders (chlamydial infections)

Asymptomatic *Chlamydia trachomatis* infections among sexually active men
GH KARAM, DH MARTIN, TR FLOTTE, *ET AL* (New Orleans, USA). *J Infect Dis* 1986; **154**:900-3.

Persistent neonatal chlamydial infection in a 6-year-old girl
K STENBERG AND P-A MÅRDH (Goteburg, Sweden). *Lancet* 1986;ii:1278-9.

Experimental proctitis due to rectal infection with *Chlamydia trachomatis* in non-human primates
TC QUINN, HR TAYLOR, AND J SCHACHTER (Baltimore, USA). *J Infect Dis* 1986;**154:** 833-41.

Effect of blind passage and multiple sampling on recovery of *Chlamydia trachomatis* from urogenital specimens
RB JONES, BP KATZ, B VAN DER POL, VA CAINE, BE BATTEIGER, AND WJ NEWHALL (Indianapolis, USA). *J Clin Microbiol* 1986;**24:** 1029-33.

Evaluation of the modified Chlamydiazyme immunoassay for the detection of chlamydial antigen
RA LEVY AND AL WARFORD (North Hollywood, USA). *Am J Clin Pathol* 1986; **86:**330-5.

Accuracy of immunoglobulin M immunoassay for diagnosis of chlamydial infections in infants and adults
JB MAHONY, MA CHERNESKY, K BROMBERG, AND J SCHACHTER (Hamilton, USA). *J Clin Microbiol* 1986;**24:**731-5.

Failure of norfloxacin to eradicate *Chlamydia trachomatis* in nongonococcal urethritis
WR BOWIE, V WILLETTS, AND L SIBAU (Vancouver, Canada). *Antimicrob Agents Chemother* 1986;**30:**594-7.

Non-specific genital infection and related disorders (general)

The characterization of bacterial and non-bacterial prostatitis by prostatic immunoglobulins
LMD SHORTLIFFE AND N WEHNER (Stanford, USA). *Medicine* 1986;**65:**399-414.

Pelvic inflammatory disease

Antibiotic treatment of pelvic inflammatory disease: trends among private physicians in the United States, 1966 through 1983
DA GRIMES, JH BLOUNT, J PATRICK, AND AE WASHINGTON (Atlanta, USA) *JAMA* 1986;**256:**3223-6.

Treatment of pelvic inflammatory disease: use doxycycline with an appropriate β-lactam while we wait for better data
P WØLNER-HANSSEN, D ESCHENBACH, J PAAVONEN, AND KK HOLMES (Seattle, USA). *JAMA* 1986;**256:**3262-3.

Reiter's disease

***Chlamydia trachomatis* and reactive arthritis**
A KEAT, B THOMAS, J DIXEY, M OSBORN, C SONNEX, AND D TAYLOR-ROBINSON (London, England). *Lancet* 1987;i:72-4.

Sexually acquired reactive arthritis (SARA) is a complication that occurs in 1% of men with sexually transmitted non-gonococcal urethritis. About half the cases of SARA are associated with *Chlamydia trachomatis* infection in the genital tract. Though *C trachomatis* has not been isolated from material from the joints of these patients, several observations have suggested the possibility of the presence of *C trachomatis* or its antigenic fragments in the joints.

In this study synovium or synovial fluid cell deposit, or both, from eight patients with SARA and eight with knee effusions associated with other rheumatic conditions were examined using a fluorescein labelled monoclonal antibody to *C trachomatis* (Microtrak, Syva). Chlamydial elementary bodies were detected in five of the patients with SARA but none of the other eight patients. All five patients had serum chlamydial antibody at a titre of $\geq 1/64$ and one yielded *C trachomatis* from the genital tract. The control group had no serological evidence of *C trachomatis*. In neither group could *C trachomatis* be isolated from the joints.

The monoclonal antibody technique has been shown to be highly sensitive and specific for *C trachomatis* in genital tract and ocular specimens. Its applicability for other sites has not been established. There is little doubt, however, that the particles seen in joint material from the patients in this study were truly chlamydial. Whether they were in a viable form is not known. That they could not be cultured may have been because the organism was dead or because the antibody in synovial fluid interfered with isolation. Further efforts to culture the virus from joint material are essential. A direct causal link between arthritis and the presence of chlamydiae in the joint has important implications as early treatment by intra-articular or intravenous administration of antibiotic may be more effective than oral antibiotics. The use of fluorescent antibody techniques in any investigation to prove the link is, however, fought with the danger of spurious results in the hands of inexperienced workers.

K Sankar

Trichomoniasis

The possible role of *Trichomonas vaginalis* as a "vector" for the spread of other pathogens
LG KEITH, J FRIBERG, N FULLAN, R BAILEY, AND GS BERGER (Chicago, USA). *Int J Fertil* 1986;**31:**272-7.

Detection of *Trichomonas vaginalis* in vaginal specimens by direct immunofluorescence assay
RF SMITH (Martinez, USA). *J Clin Microbiol* 1986;**24:**1107-8.

Candidosis

A macrophage defect in women with recurrent *Candida* vaginitis and its reversal in vitro by prostaglandin inhibitors
SS WITKIN, J HIRSCH, AND WJ LEDGER (New York, USA). *Am J Obstet Gynecol* 1986; **155:**790-5.

Recurrent vulvovaginal candidiasis: a prospective study of the efficacy of maintainance ketoconazole therapy
JD SOBEL (Detroit, USA). *N Engl J Med* 1986;**315:**1455-8.

Systemic absorption of miconazole from the vagina
TK DANESHMEND (Plymouth, England). *J Antimicrob Chemother* 1986;**18:**507-11.

Genital herpes

Suitability of new chlamydia transport medium for transport of herpes simplex virus
DL BARNARD, K FARNES, DF RICHARDS, GE CROFT, AND FB JOHNSON (Provo, USA). *J Clin Microbiol* 1986;**24:**692-5.

Interferon in the prevention of genital herpes recurrence
LJ ERON, L HARVEY, C TOY, AND D SANTOMAURO (Annandale, USA). *Antimicrob Agents Chemother* 1986;**30:** 608-10.

Genital warts

Genital tract papillomavirus type 6 in recurrent conjunctival papilloma
Z NAGASHFAR, PJ McDONNELL, JM McDONNELL, WR GREEN, AND KV SHAH (Baltimore, USA). *Arch Ophthalmol* 1986; **104**:1814-5.

An infant boy born by vaginal delivery to a mother who was noted to have vaginal condylomata at the time of delivery developed a papillomatory lesion of the right inferior palpebral conjunctiva at 4 months. Excision was performed at 11 months, and human papilloma virus (HPV) type 6 was identified by in situ hybridisation of paraffin sections.

At 26 months, the patient was noted to have a papillomatous lesion of the soft palate, and endoscopy showed further papillomatory lesions of the right and left false vocal cords. These lesions were excised using carbon dioxide laser. At 29 months, recurrent papillomas were noted, this time of the superior palpebra conjunctiva of the right eye and the soft palate. Both were excised, and HPV type 6 was once again identified in tissue from the conjunctival lesion by Southern transfer hybridisation. The patient remained free of recurrent lesions one year later.

Despite the fact that no attempt was made to identify the human papilloma virus responsible for the maternal condylomata, as the onset of the conjunctival papillomas was early and a genital tract papilloma virus was identified, the patient probably acquired wart virus infection from his mother at the time of delivery. Identification of HPV type 6 from the conjunctiva and respiratory tract is consistant with its known prediliction for mucosal surfaces.

Of interest is the long period from excision of the first papilloma at 11 months to the recurrence noted in the same eye (upper rather than lower lid) at 29 months. Can this be attributed to latency of the virus or, in view of the presence of respiratory papillomas, does this represent reinfection after contact with infected respiratory secretions? Human papilloma virus infection must, however, be added to the list of sexually transmitted diseases known to cause ocular infection in infants after exposure during passage through an infected birth canal.

WC Stack

Human papillomavirus in clinically and histologically normal tissue of patients with genital cancer
JCM MACNAB, SA WALKINSHAW, JW CORDINER, AND JB CLEMENTS (Glasgow, Scotland). *N Engl J Med* 1986;**315**:1052-8.

Cytologic detection of condylomas and cervical intraepithelial neoplasia of the uterine cervix with histologic correlation
SM SELVAGGI (Taylor, USA). *Cancer* 1986;**58**:2076-81.

Human papillomavirus infection of the uterine cervix of women without cytological signs of neoplasia
PG TOON, JR ARRAND, LP WILSON, AND DS SHARP (Manchester, England). *Br Med J* 1986;**293**:1261-4.

Human papillomavirus genomes in penile smears of healthy men
E-I GRUSSENDORF-CONEN, E-M de VILLIERS, AND L GISSMANN (Aachen, Federal Republic of Germany). *Lancet* 1986; ii:1092.

Evaluation of male consorts of women with genital human papilloma virus infection
PK SAND, LW BOWEN, SO BLISCHKE, AND DR OSTERGARD (Irvine, USA). *Obstet Gynecol* 1986;**68**:679-81.

Use of biotinylated DNA probes in screening cells obtained from cervical swabs for human papillomavirus DNA sequences
R NEUMANN, B HEILES, C ZIPPEL, *ET AL* (Marburg, Federal Republic of Germany). *Acta Cytologica* 1986;**30**:603-7.

Histological and immunocytochemical study of cervical intraepithelial neoplasia (CIN) with associated HPV 6 and HPV 16 infections
D JENKINS, SK TAY, DJ McCANCE, MJ CAMPION, PK CLARKSON, AND A SINGER (London, England). *J Clin Pathol* 1986;**39**:1177-80.

Human genital papilloma infections: an evaluation of immunologic competence in the genital neoplasia-papilloma syndrome
LF CARSON, LB TWIGGS, M FUKUSHIMA, *ET AL* (Minneapolis, USA). *Am J Obstet Gynecol* 1986;**155**:784-9.

Interferon therapy for condylomata acuminata
LJ ERON, F JUDSON, S TUCKER, *ET AL* (Falls Church, USA). *N Engl J Med* 1986;**315**:1059-64.

The effect of interferon on human papillomaviruses associated with cervical intraepithelial neoplasia
MA BYRNE, BR MØLLER, D TAYLOR-ROBINSON, *ET AL* (Harrow, England). *Br J Obstet Gynaecol* 1986;**93**:1136-44.

Prophylatic topical 5-fluorouracil following treatment of human papillomavirus-associated lesions of the vulva and vagina
H-B KREBS (Richmond, USA). *Obstet Gynecol* 1986;**62**:837-41.

Acquired immune deficiency syndrome

The clinical features of HIV infection in Africa
RJ BIGGAR (Bethesda, USA). *Br Med J* 1986;**293**:1453-4.

Severe illness associated with appearance of antibody to human immunodeficiency virus in an African
RJ BIGGAR, BK JOHNSON, SS MUSOKE, *ET AL (Bethesda, USA). Br Med J* 1986;**293**:1210-1.

Initial manifestation of acquired immunodeficiency syndrome in the head and neck region
J HELSPER, S FORMENTI, AND A LEVINE (Pasadena, USA). *Am J Surg* 1986;**152**:403-6.

Acquired immunodeficiency syndrome manifested by chronic primary genital herpes
JA MAIER, A BERGMAN, AND MG ROSS (Torrance, USA). *Am J Obstet Gynecol* 1986;**155**:756-8.

Eosinophilic vasculitis leading to amaurosis fugax in a patient with acquired immunodeficiency syndrome
ND SCHWARTZ, YT SO, H HOLLANDER, S ALLEN, AND KH FYE (San Fransico, USA). *Arch Intern Med* 1986;**146**:2059-60.

Cardiac involvement in congenital acquired immunodeficiency syndrome
LJ STEINHERZ, JA BROCHSTEIN, AND J ROBINS (New York, USA). *Am J Dis Child* 1986; **140**:1241-4.

Human T-cell lymphotropic virus type III infection of the central nervous system: a preliminary in situ analysis
MH STOLER, TA ESKIN, S BENN, RC ANGERER, AND LM ANGERER (Rochester, USA). *JAMA* 1986;**256**:2360-4.

Neuroradiologic findings in AIDS: a review of 200 cases
RM LEVY, S ROSENBLOOM, AND LV PERRETT (San Francisco, USA). *Am J Roentgenol* 1986;**147**:977-83.

Neuropathology of acquired immunodeficiency syndrome (AIDS): an autopsy review
CK PETITO, E-S CHO, W LEMANN, BA NAVIA, AND RW PRICE (New York, USA). *J Neuropathol Exp Neurol* 1986;**45**:635-46.

The acquired immune deficiency syndrome (AIDS) and suicidal behaviour in alcohol-dependent homosexual men
DK FLAVIN, JE FRANKLIN, AND RJ FRANCES (New York, USA). *Am J Psychiatry* 1986; **143**:1440-2.

Neurologic manifestations of human immunodeficiency virus infection in children
LG EPSTEIN, LR SHARER, JM OLESKE, *ET AL* (Newark, USA). *Pediatrics* 1986;**78**:678-87.

Virus isolation from and identification of HTLV-III/LAV-producing cells in brain tissue from a patient with AIDS
S GARTNER, P MARKOVITS, DM MARKOVITZ, RF BETTS, AND M POPOVIC (Bethesda, USA). *JAMA* 1986;**256**:2365-71.

Detection of HTLV-III RNA in lungs of patients with AIDS and pulmonary involvement
KJ CHAYT, ME HARPER, LM MARSELLE, *ET AL* (Bethesda, USA). *JAMA* 1986;**256**:2356-9.

Transmission of human immunodeficiency virus (HIV/HTLV-III/LAV): a review
M van der GRAAF AND RJA DIEPERSLOOT (Amsterdam, the Netherlands). *Infection* 1986;**14**:203-11.

Sexual transmission of human immunodeficiency virus
TA PETERMAN AND JW CURRAN (Atlanta, USA). *JAMA* 1986;**256**:2222-6.

Evidence for heterosexual transmission and clinical manifestations of human immunodeficiency virus infection and related conditions in Lusaka, Zambia
M MELBYE, EK NJELESANI, A BAYLEY, *ET AL* (Aarhus, Denmark). *Lancet* 1986;ii:1113-5.

A hospital based survey of the distribution of human immunodeficiency virus (HIV) antibodies in inpatients, outpatients, and healthy subjects (antenatal clinic attenders, hospital workers, and blood donors) was carried out in Lusaka, Zambia.

One thousand and seventy eight consecutive subjects, all seen on one day, underwent a standardised interview and clinical examination. Serum samples were tested for the presence of antibodies to human immunodeficiency virus (HIV) using a competitive enzyme linked immunosorbent assay (ELISA), and random samples and those giving borderline results were tested further using a western blot assay and gamma immunoglobulin capture assay. Of the 25 borderline results, 15 were seropositive on further confirmatory testing. One hundred and eighty nine (18%) people were HIV antibody positive, the age range in men being 30-35 years and in women 20-25 years, and the difference in seropositivity of men and women was not significant. Longer duration of education was appreciably associated with seropositivity. The incidence of infection was highest in patients attending sexually transmitted diseases (STD) (29%) and dermatology (27%) clinics and lowest in women attending antenatal clinics (9%) and orthopaedic patients (9%). The incidence was significantly high in STD ($p = 0{\cdot}0004$), dermatology ($p = 0{\cdot}007$) and surgery ($p = 0{\cdot}02$) wards (excluding trauma and orthopaedics) where several seropositive patients were receiving treatment for urethral strictures or fistulas. Hospital workers (19%) and blood donors (18%) were not thought to be representative because they had a higher educational level than the general population. Seropositivity was appreciably associated in healthy subjects with skin rashes and generalised lymphadenopathy, and in ill patients with infectious diseases and HIV related problems, such as herpes zoster, oral candidiasis, diarrhoea, and tuberculosis. Similar percentages (29% to 38%) of patients attending STD clinics suffering from syphilis, chancroid, lymphogranuloma venereum, or herpes genitalis, had antibodies to HIV. No STD was specifically associated with seropositivity, and previous attenders were more likely to acquire HIV infection than first time attenders.

This paper suggests that HIV infection and its related problems, other than AIDS associated Kaposi's sarcoma, are now prevalent in Africa in young sexually active people, and that the virus is heterosexually transmitted. The authors conclude that the infection has only recently been introduced there, a fact that has important implications in the subsequent prevention of the disease in this part of Africa.

B P Goorney

Vaginal transmission of human immunodeficiency (HIV) to a chimpanzee
PN FULTZ, HM McCLURE, H DAUGHARTY, *ET AL* (Atlanta, USA). *J Infect Dis* 1986;**154**:896-900.

HIV seroprevalence among hospital workers Kinshasa, Zaire: lack of association with occupational exposure
JM MANN, H FRANCIS, TC QUINN (Atlanta, USA). *JAMA* 1986;**256**:3099-102

Minimum size of the acquired immunodeficiency syndrome (AIDS) epidemic in the United States
R BROOKMEYER AND MH GAIL (Baltimore, USA). *Lancet* 1986;ii:1320-2.

Medical care costs of AIDS in Massachusetts
GR SEAGE, S LANDERS, MA BARRY, J GROOPMAN, GA LAMB, AND AM EPSTEIN (Boston, USA). *JAMA* 1986;**256**:3107-9.

Medical care costs of patients with AIDS in San Francisco
AA SCITOVSKY, M CLINE, AND PR LEE (Palo Alto, USA). *JAMA* 1986;**256**:3103-6.

The Vancouver lymphadenopathy-AIDS study: 5. Antecedent behavioural clinical and laboratory findings in patients with AIDS and HIV-seropositive controls
WJ BOYKO, MT SCHECHTER, KJP CRAIB, *ET AL* (Vancouver, Canada). *Can Med Assoc J* 1986;**135**:881-7.

Evaluation of three commercial screening tests for AIDS virus antibodies
JR CARLSON, SH HINRICHS, J YEE, MB GARDNER, AND NC PEDERSEN (Davis, USA). *Am J Clin Pathol* 1986;**86**:357-9.

Variations in western blot banding patterns of human T-cell lymphotropic virus type III/lymphadenopathy-associated virus
DS BURKE, RR REDFIELD, P PUTMAN, AND SS ALEXANDER (Washington, USA). *J Clin Microbiol* 1987;**25**:81-4.

Salivary antibodies as a means of detecting human T cell lymphotropic virus type III/lymphadenopathy-associated virus infection
DW ARCHIBALD, LI ZON, JE GROOPMAN, JS ALLAN, MF McLANE, AND ME ESSEX (Boston, USA). *J Clin Microbiol* 1986;**24**:873-5.

Persistent HIV antigenaemia and decline of HIV core antibodies associated with transition to AIDS
JMA LANGE, F de WOLF, SA DANNER, *ET AL* (Amsterdam, the Netherlands). *Br Med J* 1986;**293**:1459-62.

Serological markers in early stages of human immunodeficiency virus infection in haemophiliacs

J-P ALLAIN, Y LAURIAN, D PAUL, D SENN, AND MEMBERS OF THE AIDS-HAEMOPHILIA FRENCH STUDY GROUP (North Chicago, USA). *Lancet* 1986;ii:1233-6.

Serological events were studied in 40 patients with haemophilia who seroconverted in sequential tests by a screening enzyme linked immunosorbent assay (ELISA) for antibody to human immunodeficiency virus (HIV). Three assays were used: a "sandwich" assay for HIV based on a solid phase coated with human anti-HIV, a probe of rabbit antiserum to HIV, and a goat anti-rabbit enzyme conjugate; a competitive ELISA for antibody to purified rDNA envelope protein (mainly gp41, anti-env); and a second competitive ELISA for anti-rDNA HIV core protein (mainly p24, anti-core).

Though not all subjects were tested regularly, six were found to have HIV antigen alone and three HIV antigen plus anti-env before seroconversion in the screening ELISA. At seroconversion seven subjects had antigen, four with anti-env, but of these seven none had anti-core. All subjects became antigen negative when anti-core appeared. In these haemophiliacs the interval from the appearance of the first serological marker (antigen or anti-env, or both) to seropositivity in the ELISA screening test was 1 to 3½ months, somewhat longer than found in homosexual men in other work referred to in the paper (the interval may also be inflated by sampling delay inevitable in studies of this sort).

In discussion, the authors emphasise the relation between loss of antigen and the appearance of anti-core (anti-p24). They attribute the late detectability of anti-p24 either to p24 being less antigenic than p41, or to antigen complexing anti-p24 for longer, or to the high sensitivity of the anti-gp41 assay. The assays used might have a role in the earlier detection of HIV infection, as they give positive results two weeks to five months after known exposure. Physicians in genitourinary medicine will also be interested in the observation reported in the paper that there was a decrease or loss of anti-p24 in patients with AIDS and that 75% of 52 of them had detectable HIV antigen. The authors suggest that the antigen detected is p24 and that the reactivity of these novel assays depends on the balance of this antigen in the specimens. This balance seems to change at the beginning of HIV infection and again if end stage HIV related disease develops. The detection of the latter change might be a prognostic indication, and this point deserves further investigation.

P P Mortimer

Immunological abnormalities in asymptomatic homosexual men: correlation with antibody to HTLV-III and sequential changes over two years

IH FRAZER, IR MACKAY, RM CRAPPER, *ET AL (Melbourne, Australia). Q J Med* 1986; **61**:921-33.

Serum amyloid protein A (SAA): an indicator of inflammation in AIDS and AIDS-related complex (ARC)

A HUSEBEKK, H PERMIN, AND G HUSBY (Tromsø Norway). *Scand J Infect Dis* 1986;**18**:389-94.

Structural characterization of reverse transcriptase and endonuclease polypeptides of the acquired immunodeficiency syndrome retrovirus

MM LIGHTFOOTE, JE COLIGAN, TM FOLKS, AS FAUCI, MA MARTIN, AND S VENKATESAN (Bethesda, USA). *J Virol* 1986;**60**:771-5.

HLA-associated susceptibility to acquired immunodeficiency syndrome in Italian patients with human-immunodeficiency-virus infection

RS SMERALDI, G FABIO, A LAZZARIN, NB EISERA, M MORONI, AND C ZANUSSI (Milan, Italy). *Lancet* 1986;ii:1187-9.

Enhanced serological and virological findings of Epstein-Barr virus in patients with AIDS and AIDS-related complex

CV SUMAYA, RN BOSWELL, Y ENCH, *ET AL* (San Antonio, USA). *J Infect Dis* 1986;**154**:864-70.

Induction of CD4-dependent cell fusion by the HTLV-III/LAV envelope glycoprotein

JD LIFSON, MB FEINBERG, GR REYES (San Carlos, USA). *Nature* 1986;**323**:725-8.

HTLV-III/LAV-neutralizing antibodies to an *E coli*-produced fragment of the virus envelope

SD PUTNEY, TJ MATTHEWS, WG ROBEY, *ET AL* (Cambridge, USA). *Science* 1986;**234**: 1392-5.

Adolescents and AIDS: a survey of knowledge, attitudes and beliefs about AIDS in San Francisco

RJ DiCLEMENTE, J ZORN, AND L TEMOSHOK (San Francisco, USA). *Am J Public Health* 1986;**76**:1443-5.

Public knowledge of AIDS and the DHSS advertisement campaign

S MILLS, MJ CAMPBELL, AND WE WATERS (Southampton, England). *Br Med J* 1986; **293**:1089-90.

Willingness of homosexual and bisexual men in London to be screened for human immunodeficiency virus

J WELCH, S PALMER, JE BANATVALA, C BRADBEER, AND D BARLOW (London, England). *Br Med J* 1986;**293**:924.

Interferon inactivator(s) in patients with AIDS and AIDS-unrelated Kaposi's sarcoma

MG IKOSSI-O'CONNOR, KC CHADA, MA LILLIE, Z BERNSTEIN, D ZUCKER-FRANKLIN, AND JL AMBRUS (Buffalo, USA). *Am J Med* 1986; **81**:783-5.

Alpha interferon therapy of AIDS-associated Kaposi's sarcoma

DI ABRAMS AND PA VOLBERDING (San Francisco, USA). *Semin Oncol* 1986;**13** suppl 2:43-7.

Treatment of cytomegalovirus retinopathy in patients with acquired immunodeficiency syndrome: use of the experimental drug 9-(2-hydroxy-1-(hydroxymethyl) ethoxymethyl) guanine

GN HOLLAND, MJ SAKAMOTO, D HARDY, *ET AL* (Los Angeles, USA). *Arch Ophthalmol* 1986;**104**:1794-800.

Dialysis in AIDS patients

GM BERLYNE, J RUBIN, AND AJ ADLER (Brooklyn, USA). *Nephron* 1986;**44**:265-6.

Other sexually transmitted diseases

Demontration of a unique viral structure: the molluscum viral colony sac

WB SHELLEY AND V BURMEISTER (Toledo, USA). *Br J Derm* 1986;**115**:557-62.

A second site for Epstein-Barr virus shedding: the uterine cervix

JW SIXBEY, SM LEMON, AND JS PAGANO (Memphis, USA). *Lancet* 1986;ii:1122-4.

Of 28 women studied, 20 were attending a sexually transmitted disease (STD) clinic and had no symptoms suggestive of infectious mononucleosis; eight presented to a university health service with suspected infectious mononucleosis. Cervical specimens taken from all were tested for Epstein-

Barr virus (EBV) by lymphocyte transformation assays and from 14 also for EBV DNA by nucleic acid cytohybridisation. All women were serologically tested. Evidence of EBV in the cervical specimens was detected in five of the 28 women (18%). (Two of these five had suspected infectious mononucleosis, three were attending the STD clinic.) Cell free infectious virus was found by lymphocyte transformation assays in four of these five patients. Two of the five had epithelial cells containing EBV DNA (one of these two also had cell free virus). The three positive women attending the STD clinic showed no serological evidence of acute EBV infection; the two positive women with suspected infectious mononucleosis had serological evidence of more recent EBV infections, but neither had appreciable atypical lymphocytes.

EBV shedding from sites other than the oropharynx has not previously been described. In this study detection of infectious EBV in cervical specimens from women with infectous mononucleosis as well as women with serological evidence of past infection suggests that the uterine cervix may be a site for chronic viral shedding. The authors suggest that sexual transmission of EBV is possible and orogenital transmission is likely. They raise the possibility of perinatal spread during vaginal delivery and a possible oncogenic role in carcinoma of the cervix.

J Wilson

Hepatitis B vaccination of 113 haemophiliacs: lower antibody response in anti-LAV/HTLV-III-positive patients

AR ZANETTI, PM MANNUCCI, E TANZI, *ET AL* (Milan, Italy). *Am J Hematol* 1986;**23**:339-45.

Genitourinary bacteriology

Trimethylamine: the substance mainly responsible for the fishy odor often associated with bacterial vaginosis

JM BRAND AND RP GALASK (Iowa City, USA). *Obstet Gynecol* 1986;**68**:682-5.

Significance of *Gardnerella vaginalis* in urine cultures

BF WOOLFREY, GK IRELAND, AND RT LALLY (St Paul, USA). *Am J Clin Pathol* 1986;**86**:324-9.

Tetracycline resistance and *tetM* in pathogenic urogenital bacteria

MC ROBERTS, SL HILLIER, J HALE, KK HOLMES, AND GE KENNY (Seattle, USA). *Antimicrob Agents Chemother* 1986;**30**:810-2.

Public health and social aspects

Sexually transmitted disease surveillance in Britain – 1984

COMMUNICABLE DISEASE SURVEILLANCE CENTRE. *Br Med J* 1986;**293**:942-3.

Time trends in prevalence of cervical cytological abnormality in women attending a sexually transmitted disease clinic and their relationship to trends in sexual activity and specific infections

BK ARMSTRONG, OV ALLEN, BA BRENNAN, *ET AL* (Nedlands, Australia). *Br J Cancer* 1986;**54**:669-75.

Screening therapeutic insemination donors for sexually transmitted diseases: overview and recommendations

RM GREENBLATT, HH HANDSFIELD, MH SAYERS, AND KK HOLMES (Seattle, USA). *Fertil Steril* 1986;**46**:351-64.

Widespread use of condoms and low prevalence of sexually transmitted diseases in Danish non-drug addict prostitutes

K KROGSGAARD, C GLUUD, C PEDERSEN, *ET AL* (Herlev, Denmark). *Br Med J* 1986;**293**:1473-4.

Miscellaneous

Telangiectasias of the anterior chest in homosexual men

T FALLON, E ABELL, L KINGSLEY, *ET AL* (Pittsburgh, USA). *Ann Intern Med* 1986 105:679-82.

Microbiological and biochemical characterization of spirochetes isolated from the feces of homosexual males

MJ JONES, JN MILLER, AND WL GEORGE (Los Angeles, USA). *J Clin Microbiol* 1986; **24**:1071-4.